

BOOK REVIEWS

quality of research studies in families afflicted with genetic diseases is well conveyed, and the excitement of a scientific discovery with immediate application to a family is palpable. Dr. Nyhan scrupulously acknowledges workers and discoveries in a style which presumably will not overwhelm the lay reader, by mentioning the key discovery in an area informally. A marvelous sense of whimsy also pervades the book, and both are well illustrated by the following paragraph:

Until 1969 the situation was simply that hopeless. But during that year Drs. John O'Brien and Shintaro Okada of the University of California, San Diego, found the molecular defect that underlies Tay-Sachs disease. In the August 15 issue of *Science* they reported that patients with Tay-Sachs disease demonstrated a total absence of an essential enzyme known as hexosaminidase A (or hex A for short), which ordinarily breaks down sphingolipid molecules. This enzyme is essential in preventing the accumulation of GM2-ganglioside, a specific sphingolipid molecule, in brain and other neural tissue. In the absence of hex A the concentration of GM2-ganglioside becomes progressively greater, interfering with normal neurological functioning and ultimately resulting in death. For the proper breakdown of the GM2-ganglioside molecule to occur, one of its end portions, called a hexosamine, must be split off. The enzyme controlling this specific process is, of course, hexosaminidase, or hex A. This fact had been known for some time. What proved puzzling was the observation that hexosaminidase levels in the blood, brain, and other tissues of patients with Tay-Sachs disease seemed perfectly normal. O'Brien and Okada developed a technique for analyzing hexosaminidase that revealed there were two distinct components of the molecule. They designated them A and B. In patients with Tay-Sachs disease the A enzyme was missing. This accounted for the faulty breakdown of GM2-ganglioside. It is one of the more assuring aspects of science among men that the riddle of this Jewish disease was solved by an Irishman and a Japanese.

This paragraph also illustrates one of my major concerns with this book. To whom is it addressed? Do parents of a child afflicted with only one of the 13,500 possible genetic diseases need to know that hexosaminidase is a molecule with subunit structure? Do those whose children do not have phenylketonuria (PKU) gain insight from a discussion of the specific brand names of low-phenylalanine formulas used in Europe and America? And yet, spina bifida and anencephaly, the neural tube developmental defects, which are more common than either Tay-Sachs disease or PKU, are discussed very briefly and no mention is made of prenatal diagnosis utilizing amniotic fluid alpha-fetoprotein determination. I mention these examples merely to illustrate that while *The Hereditary Factor* is not a textbook of genetics and cannot be judged by those standards of detail and completeness, as a "mini-course in genetics" for the layman, it is, albeit marvelously readable and exciting, definitely a graduate level seminar.

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THE HAND—Diagnosis and Indications—Graham Lister, FRCS, Assistant Clinical Professor of Plastic Surgery, University of Louisville; Consultant Hand Surgeon, University of Louisville Affiliated Hospitals. Longman Inc., 19 West 44th Street, New York City (10036), 1977. 224 pages, \$27.50.

Dr. Lister succinctly focuses on the practical issues in diagnosing hand disorders and determining proper treatment. The text is complemented by lucid, well-chosen photographs. He covers his subject under chapter headings: Injury, Reconstruction, Compression, Inflammation, Rheumatoid, Swelling and Muscle Testing. The index is excellent and he includes a valuable bibliography.

This is an important text for all physicians who must evaluate and treat hand problems. For the sake of brevity, it does not cover congenital hand disorders or fractures of the forearm and wrist.

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RECENT ADVANCES IN DERMATOLOGY—Number Four—Edited by Arthur Rook, MD, FRCP, Consultant Dermatologist, Addenbrooke's Hospital, Cambridge; Civil Consultant in Dermatology to the Royal Air Force. Churchill Livingstone—Medical Division, Longman Inc., 19 West 44th Street, New York City (10036), 1977. 395 pages, \$27.50.

The *Recent Advances in Dermatology* series rapidly established itself as a key reference source for practicing physicians. This is the place to find a balanced approach to new information that is clinically relevant. Dr. Rook's experience, knowledge and superior judgment enables him to guide each contributor to meet the mark. Unlike most reference works, most chapters in this book are well constructed, easily read *in toto* as a general orientation.

Volume 4 has 11 chapters. Widespread readership will be found for most. Especially noteworthy are opportunity and skin infection, arthropods and the skin, sweat gland disorders, and topical therapy. All dermatologists and medical libraries will find this an essential series to own; internists, generalists and others will find this the place to start their updates in the dermatologic sciences.

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HANDBOOK OF OBSTETRICS & GYNECOLOGY—Sixth Edition—Ralph C. Benson, MD, Clinical Professor of Obstetrics and Gynecology and Emeritus Chairman, Department of Obstetrics and Gynecology, University of Oregon Health Sciences Center, Portland. Lange Medical Publications, Drawer L, Los Altos, CA (94022), 1977. 772 pages, \$9.50.

The sixth edition of Dr. Benson's *Handbook of Obstetrics & Gynecology* continues in the tradition of its predecessors in being a good pocket reference text for medical students rotating on obstetrics and gynecology. It is quite complete in topics but superficial in content, and as such serves as a resource for students wishing to survey the specialty as well as a handy reference for definitions of terms, procedures or philosophical approaches to problems. It does not have the informational depth to be of value to house officers or practicing physicians and should not be expected to replace reference texts or more detailed textbooks should a student wish to obtain a deeper understanding of a particular aspect of the specialty. As a handbook, however, it is quite up-to-date.

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MICROVASCULAR RECONSTRUCTIVE SURGERY—Bernard McC. O'Brien, BSc, MS(Melb), FRCS(Eng), FRACS, FACS, Director, Microsurgery Research Unit, and Assistant Plastic Surgeon, St. Vincent's Hospital, Melbourne; Hunterian Professor, Royal College of Surgeons of England; Kazanjian Professor, New York University Medical Center; Consultant Plastic Surgeon to Royal Australian Air Force and to Mercy Maternity Hospital, Melbourne; Senior Research Fellow, Department of Ophthalmology, University of Melbourne. Churchill Livingstone—Medical Division, Longman Inc., 19 West 44th Street, New York City (10036), 1977. 360 pages, \$38.00.

This excellent small reference book should certainly be in the library of anyone actively engaged in microvascular surgery. It is also appropriate for resident surgeons interested in becoming exposed to microvascular surgery, and it has in addition a very useful section for a trained surgeon who is planning to set up his own operating unit.

In his preface the author points out the pressing need for the establishment of microvascular surgery centers throughout the world and stresses the necessity for developing a broad clinical work load as well as the facilities for experimental hand-in-hand teaching facilities